Comparison of Elastomer Properties.

E=Excellent; VG=Very Good; G=Good; F=Fair; P=Poor

PHYICAL PROPERTIES COMPARISON

	Natural Rubber	SBR	EPDM	Neoprene	Nitrile	Urethane	Silcone	Fluorocarbon
Chemical Name	Polyisoprene	Styrene Butadiene	Ethylene Propylene	Chloroprene	Acrylonitrile Butadiene	Polyester/Polyether Urethane	Polysiloxane	Fluorinated Hydrocarbon
SAE 1200 - ASTM D2000	AA	AA,BA	BA,CA,DA	BC,BE	BF,BG,BK	BG	FC,FE,GE	HK
ASTM Designation (D-1418)	NR	SBR	EPDM, EPR	CR	NBR	AU,EU	Psi,PVsi, Si, Vsi	FKM
Specific Gravity	0.093	0.94	0.86	1.23	1.00	1.05-1.25	0.95-1.20	1.4-1.95
Durometer, Shore A	30-100	40-100	30-90	40-95	30-90	55-100	25-90	55-90
Tensile Strength	E	G-F	VG	VG	VG	E	G-F	VG
Elongation	VG-G	G	G	G	G	VG-G	E-VG	G-F
Compression Set	G	G	G	G-F	G	E-G	E-G	E-G
Heat Resistance	F	G-F	E-VG	G-F	G	G-F	E	E
Resilience or Rebound	E	G-F	G	VG	G-F	E-F	G	F
Abrasion	E	E-G	E-G	E-G	E-G	E	F-P	G-F
Tear	E	F	G-F	G-F	G-F	E	F-P	F
Flame Resistance	P	P	P	G	P	F-P	G-F	E-VG
Gas Impermeability	F	F	G-F	G-F	G	P-F	G-F	E
Weather resistance	F-P	F	E	VG-G	G-F	E-G	E	E
Temperature range °C	-55° to 100°	-45° to 100°	-50° to 150°	-20° to 120°	-20° to 120°	-50° to 80°	-90° to 250°	-20° to 250°

CHEMICAL RESISTANCE PROPERTIES

	Natural Rubber	SBR	EPDM	Neoprene	Nitrile	Urethane	Silcone	Fluorocarbon
Chemical Name	Polyisoprene	Styrene Butadiene	Ethylene Propylene	Chloroprene	Acrylonitrile Butadiene	Polyester/Polyether Urethane	Polysiloxane	Fluorinated Hydrocarbon
Acid	G-F	G-F	G	G	G	F-P	F	E-G
Alcohols	G	G	G-F	VG-G	G-F	G-F	G	E-F
Alphatic Hydrocarbon Slovents	P	P	P	G	E	G	F-P	E
Alkali	F	F	VG	E	VG	P	P	G-F
Animal and Vegitable Oils	F	F	G	G	VG	G	G	E
Aromatic Hydrocarbon Solvents	P	P	P	F-P	G-F	F-P	F-P	E
Petroleum Products	P	P	P	G-F	E-G	E-G	F-P	E
Oxygenated Solvents	G	G	VG	F-P	P	P	F	P
Water	E	E-G	E	G	E-G	G	E-G	G

Use this as a guideline only. These properties are very general.